

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: MARK T. GROSS § Group Art Unit: 2837  
Serial No.: 09/836,686 §  
Filed: April 17, 2001 §  
For: CONTROLLING SHARING OF § Examiner: Marlon T. Fletcher  
FILES BY PORTABLE DEVICES § Atty. Dkt. No.: ITL-0556-US (P11214)

*9/ Appeal  
Brief  
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5/6/03*

Board of Patent Appeals & Interferences  
Commissioner for Patents  
Washington, D.C. 20231

APPEAL BRIEF

Sir:

Applicant respectfully appeals from the final rejection mailed June 19, 2002, finally rejecting claims 1-30.

I. REAL PARTY IN INTEREST

The real party in interest is the assignee Intel Corporation, the assignee of the present application by virtue of the assignment recorded at Reel/Frame 011703/0700.

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

III. STATUS OF THE CLAIMS

The application was originally filed with claims 1-30. Claims 10-17 and 21-25 are pending. All pending claims were finally rejected under 35 U.S.C. § 103(a) over U.S. Patent No.

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6,192,340 (Abecassis) in view of U.S. Patent No. 6,282,653 (Berstis). Claims 10-16 and 23-25 are the subject of this appeal.

#### IV. STATUS OF AMENDMENTS

Applicant filed a Reply to Final Action dated August 16, 2002 in which claim 17 was amended to include the limitations of dependent claims 18-20 and claim 21 was amended to change its dependency. Further, claims 1-9, 18-20, and 26-30 were cancelled without prejudice. In an Advisory Action dated September 4, 2002, the Examiner indicated that for purposes of this Appeal, the amendments would be entered and that Claims 17, 21 and 22 are allowed.

#### V. SUMMARY OF THE INVENTION

This invention relates generally to controlling sharing of files by portable devices, and, more particularly, to controlling sharing of music files by portable music players. To discourage unauthorized copying and playing of digital audio content, a variety of secure mechanisms have been proposed, including Secure Digital Music Initiative (SDMI). The SDMI Portable Device Specification Part 1, Version 1.0, document No. pdwg99070802, published July 8<sup>th</sup>, 1999. While SDMI may contribute in reducing unauthorized transfers of files from a host computer to a portable music device, it may not necessarily be as effective in controlling unauthorized transfers of music files between portable music devices.

Referring now to Figure 1, a block diagram of a communications system 10 is shown in accordance with one embodiment of the present invention. The communications system 10, in one embodiment, includes a host system 15 having a control unit 16 coupled to a storing device 17. The host system 15 may include a transfer module 18 that may be resident in the storage device 17 of the host system 15. As described in more detail below, the transfer module 18 may

be capable of transferring one or more files stored in the storage device 17 of the host system to one or more portable devices 20(1-n). Specification, p.3.

The host system 15 may be one of a variety of processor-based systems that is capable of storing and/or transmitting digital music to one or more of the portable devices 20(1-n). The host system 15, in one embodiment, is capable of transmitting a transfer count associated with each transmitted music file to the portable device 20(1), where the transfer count, in one embodiment, may represent the number of times a particular music file may be shared by (or transferred from) the portable device 20(1). The host system 15 may be a laptop computer, a desktop computer, a main frame computer, or any other processor-based device. The portable device 20(1-n) may be any one of a variety of devices capable of exchanging one or more files, including a portable music player, cellular phone, personal digital assistant (PDA), pager, and the like.

Once the portable device 20(1) receives the one or more music files from the host system 15, these music files may then be transferred from the portable device 20(1) (also referred to as the "transmitting portable device") to one or more of the other portable devices 20(2-n) (also referred to as "receiving portable devices").

Referring now to Figure 2, a flow chart of the transfer module 18 is illustrated in accordance with one embodiment of the present invention. The transfer module 18 may be invoked (at 40) when a user wishes to transfer one or more music files from the host system 15 to the portable device 20(1). The transfer module 18, in one embodiment, establishes (at 45) a connection with the portable device 20(1). In one embodiment, establishing (at 45) the connection may include verifying a secure and compatible connection. For example, if

transferring a SDMI-authenticated music file, the host system 15 may ensure that the remote portable device 20(1) is SDMI compliant. Specification, p.5.

The host system 15 transfers (at 50) at least one file to the portable device 20(1). In one embodiment, the transferred file may be encrypted in accordance with the SDMI specification. Along with the transferred file, the host system 15 may transmit (at 55) a transfer count associated with the file, where the transfer count may, for example, indicate the number of times the portable device 20(1) may transfer the received file to other devices, such as other portable devices 20(2-n). In one embodiment, the transfer count may be encoded in the contents of the music file such that the transfer count is transmitted along with the music file. In an alternative embodiment, instead of being embedded in the music file, the transfer count may be transmitted before or after the file is transferred. In one embodiment, the transfer count may be encrypted to prevent tampering.

Referring now to Figure 3, a block diagram of the portable device 20(1-n) is illustrated, in accordance with one embodiment of the present invention. The portable device 20(1-n), in one embodiment, includes a control unit 205 that is communicatively coupled to a storage device 210, which, in one embodiment, may be one of a variety of forms of memory. As described in more detail below, the portable device 20(1-n) may include a transfer module 215 that is capable of transmitting one or more music files stored in the storage device 210 to other portable devices 20(1-n). In one embodiment, the portable device 20(1-n) may include a file table 220 (described in more detail below) that includes a listing of the stored music files and their associated transfer count. In one embodiment, the portable device 20(1-n) generates the file table 220 based on the music files stored in the storage device 210 and allows the contents of the file table 220 to be displayed on the display of the portable device 20(1-n). As described below with respect to

Figures 5A-5C, the file table 220, in one embodiment, contains a list of the music files, as well as their associated transfer count, that are stored in the portable device 20(1-n). The transfer module 215 may also be stored in the storage device 210, in one embodiment.

Referring now to Figure 4, a flow chart of one embodiment of software resident on the portable device of Figure 2 is illustrated. In particular, Figure 4 illustrates a flow chart of the transfer module 215 (see Figure 2) of the portable device 20(1-n). Once the portable device 20(1) receives one or more music files from the host system 15 (as described in Figure 2), the transfer module 215, in one embodiment, may transfer one or more of the stored music files from the transmitting portable device 20(1) to other receiving portable devices 20(1-n). Thus, the transfer of files may begin, in one embodiment, when the transfer module 215 is initiated (at 305). Specification, p.8.

The transfer module 215 of the transmitting portable device 20(1) may establish (at 310) a connection with one of the receiving portable devices 20(2-n). In one embodiment, the transmitting portable device 20(1) may establish a wireless or wired peer-to-peer connection with the one or more of the receiving portable devices 20(2-n). In one embodiment, establishing (at 310) the connection may include the transfer module 215 of the transmitting portable device 20(1) establishing a secure connection with the transfer module 215 of one or more of the receiving devices 20(2-n). For example, if the transmitting portable device 20(1) is a SDMI-compliant portable device, the transfer module 215 of the transmitting module 20(1) may verify that the receiving device 20(2-n) is also SDMI-compliant. In one embodiment, the transmitting and receiving devices 20(1) and 20(2-n) establish a secured authenticated channel using key negotiation.

A user may select (at 315) at least one music file to transfer to one or more of the receiving portable devices 20(2-n). Once at least one music file is selected (at 315), the transfer module 215, in one embodiment, accesses the transfer count associated with the selected (at 320) music file. The transfer count, in one embodiment, may represent the number of times one or more of the receiving portable devices 20(2-n) may further transfer the received music file. In one embodiment, the transfer count may be stored in the storage device 210 (see Figure 3) of the transmitting device 20(1).

The transfer module 215 determines (at 325) if the transfer count associated with the selected music file is greater than zero. As described below, each time a music file is transferred, the transfer module 215 reduces the transfer count by one to indicate that the number of allowed transfers has been reduced by one. If the transfer module 215 determines (at 325) that the associated transfer count is not greater than zero, then the transfer module, in one embodiment, indicates (at 330) to the user that the maximum allowed transfers for that music file have been reached. In one embodiment, the transfer module 215 may display a message on the display 260 of the transmitting portable device 20(1) indicating that the number of allowed transfers for that music file has been reached.

If, however, the transfer module 215 determines (at 325) that the associated transfer count is greater than zero (*i.e.*, additional transfers may be allowed), then the transfer module 215, in one embodiment, transmits (at 335) the selected file, as well as a preselected transfer count, to one or more of the receiving portable devices 20(2-n). In one embodiment, the music file may be transmitted as an encrypted file, where the encryption complies with the SDMI specification's requirements to encrypt or protect the content over one of a variety of transport mediums. A key (*e.g.*, unique sequence of bits), for example, may be used to decrypt the

encrypted file, in one embodiment. The preselected transfer count value, in one embodiment, represents the number of times one or more of the receiving portable devices 20(2-n) may further transmit the received file to other portable devices 20(1-n). In one embodiment, the transfer module 215 of the transmitting portable device 20(1) transmits a preselected transfer count of zero to prevent the receiving portable device 20(1-n) from further transferring the received music file to other devices.

The transfer module 215 determines (at 340) if the transfer (at 335) from the transmitting portable device 20(1) to one or more of the receiving portable devices 20(2-n) was successful. If the transfer module 215 determines (at 340) that it was not successful, then the transfer module 215 may indicate (at 345) that the transfer failed. If the transfer module 215 determines (at 340) that the transfer was successful, then the transfer module 215, in one embodiment, updates (at 350) the transfer count associated with the transferred file by decrementing it by one. As mentioned, by decrementing the transfer count by one, the overall number of transfers allowed for that music file is reduced. The transfer module 215 of the transmitting portable device 20(1), in one embodiment, transmits (at 355) authenticating data associated with the transferred file. That is, in one embodiment, the transfer module 215 may transmit a key to decrypt (if desired) the music file received by one or more of the receiving portable devices 20(2-n).

The transfer module 215 of the transmitting portable device 20(1), in one embodiment, determines (at 360) if the user wishes transfer additional music files. If so, the user is allowed to select (at 315) at least one file for transferring. The process may then be repeated, in one embodiment, until the user has transferred all the desired files. Once the desired files have been transferred from the transmitting portable device 20(1) to one or more of the receiving portable devices 20(2-n), the process ends (at 370), in one embodiment.

As mentioned, in one embodiment, if the transfer module 215 determines (at 325) that a user has reached the allowed transfers for a given music file, the transfer module 215 may indicate (at 330) to the user that the maximum allowed transfers have been reached. After the indication (at 330), the transfer module 215 may determine (at 360) if the user wishes to transfer additional files, in one embodiment. If so, the user may be allowed to select (at 315) other music files, in one embodiment.

Referring now to Figures 5A-5C, one embodiment of the file table 220 that may be stored on the portable device 20(1-n) of Figure 3 is illustrated. Specifically, as described in more detail below, Figure 5A illustrates sample contents of the file table 220 (see Figure 3) before selected music files are transferred from the transmitting portable device 20(1) to one or more of the receiving portable devices 20(2-n). Figure 5B illustrates sample contents of the file table 220 of the transmitting device 20(1) after the selected files are transferred to one or more of the receiving portable devices 20(2-n). Figure 5C illustrates sample contents of the file table 220 of one or more of the receiving devices 20(2-n) after the selected files are transferred from the transmitting portable device 20(1). Specification, p.12.

Referring to Figure 5A, the file table 220 includes a plurality of entries 420(1-m), where, in one embodiment, each of the plurality of entries 420(1-m) includes a music file number, the title of (or other identifier for) the music file, and a transfer count associated with that music file. The file table 220 of Figure 5A illustrates, in one embodiment, current (*e.g.*, before a file transfer) content of the music files stored in the storage device 210 of the transmitting device 20(1). As can be seen, for example, the first entry 420(1) includes a music identifier “first music file” having a transfer count of four, which, in the illustrated embodiment means that the music file, “first music file,” may be transferred four more times to one or more of other portable



devices 20(2-n). Similarly, the second entry 420(2) indicates that the music file, which has a transfer count of two, may be transferred two more times to one or more of the receiving portable devices 20(2-n). The third entry 420(3) indicates that the third music file, “third music file,” may be transferred two times, as indicated by a transfer count of two.

For illustrative purposes, it is herein assumed that a user selects “first music file” and “second music file” to transfer from the transmitting portable device 20(1) to one or more of the receiving portable devices 20(2-n). Further, assuming that once the selected files are transferred to one or more of the receiving portable devices 20(2-n), it is desired that no further transmissions of the selected files should be allowed from one or more of the receiving portable devices 20(2-n) to other devices. Once the two selected files are successfully copied to one or more of the receiving devices 20(2-n), the transfer module 215 of the transmitting portable device 20(1) updates the transfer count of the transferred files, as shown in Figure 5B. As can be seen in the entries 420(1) and 420(3) of Figure 5B, the transfer count of “first music file” is three and the transfer count of “third music file” is one, which means that “first music file” may now be transferred only three more times and “third music file” only one more time. Figure 5C illustrates the contents of the file table 220 on the receiving device 20(2-n) after the transfer. As can be seen, Figure 5C includes a plurality of entries 420(1-g), where the first two entries include the music files that were transferred from the transmitting portable device 20(1). The transfer count of the entries 420(1-2) of the file table 220 of Figure 5C is zero, which means that these files may not be further transferred by the receiving portable device 20(2-n) to other devices. However, as can be seen, the third entry 420(3), along with other entries (*e.g.*, 420(g)) have a non-zero transfer count, which may be either because a non-zero transfer count was transmitted when these files were received from other portable devices 20(1-n), or, alternatively, these files

may have been received directly from the host system 15 (see Figure 1) that may have transmitted non-zero transfer counts, thereby allowing further transfer of these files.

## VI. ISSUES

- A. **Are Claims 10-16 Patentable Under 35 U.S.C. § 103(a) Over Abecassis In View of Berstis?**
- B. **Are Claims 23-24 Patentable Under 35 U.S.C. § 103(a) Over Abecassis In View of Berstis?**
- C. **Is Claim 25 Patentable Under 35 U.S.C. § 103(a) Over Abecassis In View of Berstis?**

## VII. GROUPING OF THE CLAIMS

For purposes of this appeal, Applicant has grouped together claims 10-16, claims 23-24, and claim 25, as set forth above.

## VIII. ARGUMENT

- A. **Claims 10-16 Are Patentable Under 35 U.S.C. § 103(a) Over Abecassis In View of Berstis**

The method of claim 10 includes “selecting at least one music file from a first portable device to transfer to a second portable device”; “transferring the music file to the second portable device”; and “transmitting a preselected transfer count to the second portable device” which is “indicative of the number of times the second portable device may transfer the music file to one or more devices.”

The Examiner rejected claim 10 (and claims 11-16 depending therefrom) under 35 U.S.C. § 103(a) over U.S. Patent No. 6,192,340 (“Abecassis”) in view of U.S. Patent No. 6,282,653 (“Berstis”). This rejection is improper. Abecassis and Berstis generally teach transfer of files between computers. However, the Examiner admits that Abecassis “does not disclose the use of a transfer count....” Final Office Action, p. 3.

More so, Berstis does not teach or suggest “transmitting a preselected transfer count” to a second portable device, nor that such a count is “indicative of the number of times the second portable device may transfer the music file to one or more devices” as recited by claim 10. Instead, Berstis teaches a system in which a count is created that indicates the number of times that a source device can transfer a file to one or more target devices. *E.g.*, Berstis, col. 8, ln. 56-col. 9, ln. 17 (cited by the Examiner in the Final Office Action, p.3). Nowhere, however, does Berstis teach or suggest a transfer count that indicates “the number of times the second portable device may transfer the music file to one or more devices.” Further, there is no teaching or suggestion to send such a transfer count from a first portable device to a second portable device. As such there is no teaching or suggestion in either of the references that would render obvious claim 10.

Thus nowhere does Berstis (or Abecassis) disclose or suggest a method in which a music file is transferred to a second portable device from a first portable device, and transferring to the second portable device a preselected transfer count “indicative of the number of times the second portable device may transfer the music file to one or more devices.” In this regard, Applicant respectfully disagrees with the conclusion of the Examiner that Abecassis discloses transferring a music file from a first portable device to a second portable device and then transferring the music file to one or more devices therefrom. Final Office Action, p. 3. This is especially so, as the Examiner cannot point to any portion of Abecassis to support such a teaching. *Id.* Thus claim 10 and claims 11-16 depending therefrom are patentable over the combination of Abecassis and Berstis. Accordingly, the Examiner’s rejection is improper and should be reversed.

**B. Claims 23-24 Are Patentable Under 35 U.S.C. § 103(a) Over Abecassis In View of Berstis**

Independent claim 23 recites, *inter alia*, a controller to “transmit an indication to the remote portable music player indicating the number of times the remote portable music player may transfer the transmitted file.” The Examiner rejected claim 23 (and claims 24-25 depending therefrom) under 35 U.S.C. § 103(a) over Abecassis in view of Berstis. This rejection is improper. Neither Berstis nor Abecassis disclose or suggest a portable music player having a controller to “transmit an indication to the remote portable music player indicating the number of times the remote portable music player may transfer the transmitted file.” As discussed above, the Examiner admits that Abecassis does not disclose a transfer count whatsoever. Further, Berstis does not teach or suggest a controller to “transmit an indication to the remote portable music player indicating the number of times the remote portable music player may transfer the transmitted file” as recited by claim 23. This is so, at least because no such indication is taught or suggested by Berstis and therefore such an indication cannot be transmitted. For at least these reasons, the Examiner’s rejection of claim 23 is improper and Applicant respectfully requests reversal of the Examiner’s rejection of claim 23 and claims 24 and 25 depending therefrom.

**C. Claim 25 Is Patentable Under 35 U.S.C. § 103(a) Over Abecassis In View of Berstis**

Claim 25 depends from claim 23 and recites that “the controller transmits the selected file to a Secure Digital Music Initiative Compliant Music Player.” Examiner also rejected Claim 25 under 35 U.S.C. § 103(a) over Abecassis in view of Berstis. This rejection is improper. Dependent claim 25 further patentably distinguishes, as nowhere does Berstis or Abecassis disclose or suggest transmitting a file to “a Secure Digital Music Initiative compliant music player” as recited by the claim. For this further independent reason, the rejection of claim 25 is


improper and Applicant respectfully requests reversal of the Examiner's rejection of dependent claim 25.

IX. CONCLUSION

Since the rejections of the claims are improper, they should be reversed.

Respectfully submitted,

Date: November 18, 2002

  
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## APPENDIX OF CLAIMS

The claims on appeal are:

10. A method, comprising:  
selecting at least one music file from a first portable device to transfer to a second portable device;  
transferring the music file to the second portable device; and  
transmitting a preselected transfer count to the second portable device,  
wherein the preselected transfer count is indicative of the number of times the second portable device may transfer the music file to one or more devices.
11. The method of claim 10, wherein transferring the music file comprises transferring an encrypted music file.
12. The method of claim 10, wherein transferring the encrypted file comprises transmitting a copy of the encrypted music file to the second portable device.
13. The method of claim 10, wherein transmitting the preselected transfer count comprises transmitting a preselected transfer count of zero.
14. The method of claim 10, further comprising accessing a transfer count associated with the file in the first portable device and updating the transfer count in response to successfully transferring the music file to the second portable device.
15. The method of claim 14, wherein updating the transfer count comprises decrementing the transfer count in the first portable device by one.
16. The method of claim 10, wherein transferring the music file comprises transmitting a copy of the music file to the second portable device.
23. A portable music player, comprising:  
an interface to communicate with a remote portable music player; and

a controller communicatively coupled to the interface, the controller to:

- allow a user to select at least one music file to transfer to the remote portable music player;
- determine if transfer of the selected file is allowed;
- transmit the selected file to the remote portable music player in response to determining that the transfer is allowed; and
- transmit an indication to the remote portable music player indicating the number of times the remote portable music player may transfer the transmitted file.

24. The portable music player of claim 23, wherein the controller reduces a transfer count associated with the transmitted file.

25. The portable music player of claim 23, wherein the controller transmits the selected file to a Secure Digital Music Initiative compliant music player.